

Product datasheet for RC200574

KDM4A (NM_014663) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KDM4A (NM_014663) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KDM4A
Synonyms:	JHDM3A; JMJD2; JMJD2A; TDRD14A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200574 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTCTGAGTCTGAAACTCTGAATCCCAGTGCTAGGATAATGACCTTTATCCAACATGGAAGAGT
TCCGAACTTCAGTAGATACATTGCCTACATTGAATCCCAAGGAGCTCATCGGCCAGGGCTAGCCAAGGT
TGTTCTCCAAAAGAGTGAAGCCACGAGCATCCTATGATGACATTGATGATTTGGTCATTCTGCCCCC
ATCAACAGCTGGTGACGGGCAGTCTGGCCTCTTACTCAGTACAACATACAGAAGAAAGCCATGACTG
TTCGAGAGTTCGCAAGATAGCCAATAGCGATAAGTACTGTACCCACGCTATAGTGAGTTGAAGAGCT
CGAGCGGAAATACTGGAAAAATCTTACATTCAATCCTCCAATCTATGGTGCAAGTGTGAATGGTACCCTC
TATGAAAAGCATGTTGATGAGTGAATATTGGCCGGCTGAGAACAATCCTGGACTTGGTGGAAAAGGAGA
GTGGGATCACCATTGAGGGTGTGAACACCCCATACCTGTACTTTGGCATGTGGAAGACATCCTTTGCTTG
GCACACTGAAGACATGGACCTCTACAGCATCAACTACCTGCACCTTTGGAGAACCAAAGTCTGGTACTCT
GTTCCACCTGAGCATGGAAAGCGGTTGGAACGCCTCGCCAAAGGCTTTTCCAGGAAGTCTCAAAGCT
GTGAGGCATTTCTCCGCCACAAGATGACCCTGATTTCCCGTTAATGTGAAGAAATATGGAATTCCTT
TGACAAGTGACTCAAGAGGCTGGAGAGTTTATGATCACTTTCCCTTATGGTTACCATGCCGGCTTTAAC
CATGGTTTTAACTGTGCGGAGTACCAATTTTGCTACCCGTCGGTGGATTGAGTACGGCAAGCAAGCTG
TGCTGTGCTCCTGTAGAAAGGACATGGTGAAGATCTCCATGGATGTGTTGTGAGAAAGTCCAGCCAGA
AAGGTACAAACTTTGAAAGCTGGGAAGGACAACACAGTTATTGACCATACTCTGCCACGCCAGAGCA
GCTGAGTTTCTTAAGGAGAGTGAAGTGCCTCCAAGAGCTGGCAACGAGGAGGAGTCCCAGAGGAGGACA
TGGAAAGGGTGGAGGATGGAGAGGAAGGAGACCTGAAGACAAGCCTGGCCAAGCACCGAATAGGGACAAA
GAGGCACCGAGTTTGTCTTGAATACCACAGGAGGTGAGTCAAGTGAAGTCTTCCCAAGGAGGATCTG
AGTTCTGAGCAGTATGAGATGACGGAGTCCCGGCAGCCCTCGCCCTGTGAGGCCACCCATAGCTCTG
TGCGGCAAGTTGAGGATGGTCTTACCTCCAGATTATTCTGACTCCACTGAAGTCAAATTTGAAGAGCT
TAAAAATGTCAAAGTAGAAGAGGAGGATGAGGAGGAAGAACAAGAAGCAGCTGCCTTGGATCTTTCTGTG



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AATCCTGCGTCTGTAGGGGGACGCCTTGTCTTCTCAGGCTCCAAAAAGAAATCATCTTCTAGCCTGGGCT
 CTGGCTCTTCACGGGATTCTATCTCTTCTGATTAGAACTAGTGAGCCTCTCTCCTGCCGAGCCCAAGG
 GCAAACGGGAGTTCTCACTGTGCACAGTTATGCCAAAGGGGATGGCAGGGTCACTGTGGGAGAGCCATGC
 ACGAGGAAGAAAGGAAGCGCCGCTAGAAGTTTCAGTGAGCGGGAGCTGGCAGAGGTTGCAGATGAATACA
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 TCATCAGGTTGAATTTGAGGCTTTAATCAGAAGTGTGAAATGCTTCAGATTTAGCCCCCAGAAGCAG
 AGGACCAAGCCATTGATTCCAGAAATGTGCTTCACTTCGACTGGCTGCAGCACGGACATCAACCTTTCTA
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 TGTGAGCAAAATCCCCCTGCCCGCTTCAAAGTAAATGTATCTTCTGTAAGAAGCGGAGGAAAAGAACT
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 CCGGTGTGATGATGCAGCCTGACGACTGGCCTTTTGTGGTCTTACATTACCTGCTTTCGGCACAAGATTCC
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 AACGGGCGCTTCTACCAGTGTGAAGTGGTCAAGGCTCACCACCGAGACCTTCTATGAAGTCAACTTTGATG
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 CACCCTATCCAAATGTACCAGGTGGAGTTGAGGATGGCTCACAACCTGTGGTTAAGAGAGATGATGTAT
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 TGAGATTTTACAGAGAAAGAGGTTAAGCAAGAAAAGAAACGGCAACGAGTTATCAACTCAAGATACCGG
 GAAGATTATTTGAGCCTGCACTATACCGGCCATCATGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200574 protein sequence
 Red=Cloning site Green=Tags(s)

MASESETLNPSARIMTFYPTMEEFRNFSRYIAYIESQGAHRAGLAKVVPKPKWPRASYDDIDDLVIPAP
 IQQLVTVGQSLFTQYNIQKKAMTVREFRKIANSDKYCTPRYSEFEELERKYWKNLTFNPPYIYADVNGTL
 YEKHVDEWNIQRLRTILDLEKESGITIEGVNTPYLFGMWKTSFAWHTEDMDLVSINYLHFGPEKSWYS
 VPPEHGKRLERLAKGFFPGSAQSCEAFLRHKMTLISPLMLKKGYPFDKVTQEAGEFMITFPYGYHAGFN
 HGFNCAESTNFAARRWIEYKQAVLCSCRKDMVKISMDVFRKQPERYKLVKAGKDNTVIDHTLPTPEA
 AEFLKESELPPRAGNEEECEPEDEMEGVDEEGDLKTSKAKHRIGTKRHRVCLIPQEVQSSELPFKEDL
 SSEQYEMTECPAALAPVRPTHSSVRQVEDGLTFPDYSDSTEVKFEELKNVLEEEDEEEQEAALDLVS
 NPASVGGRLVFSGSKKSSSSLSGSSSRDSSSDSETSEPLSCRAQQQTGVLTVHSYAKGDGRVTYGEPC
 TRKKGSAARFSERELAEVADEYMFSLLENKSKGRRQPLSKLPRHPLVLQECVSDEETSEQLTPEEEA
 EETEAWAKPLSQLWQNRPPNFEAEKEFNETMAQQAPHCAVCMIFQTYHQVEFGFNQNCGNASDLAPQKQ
 RTKPLIPEMCFSTGCDINLSTPYLEEDGTSILVSCKKCSVRVHASCYGVPPAKASEDWMCSSRCSANA
 LEEDCCLCSLGGALQRANDRWVHVSCAVAILERFVNIAERSPVDVSKIPLPRFKLKCIFCKRRKRT
 AGCCVQCSHGRCPTAFHVSCAQAAGVMMQPDWPFVVFITCFRHKIPNLERAKGALQSITAGQKVISKHK
 NGRFYQCEVVRLLTETFEVNFDDGSFSDNLYPEDIVSQDCLQFGPPAEGEVVQVRWTDGQVYGAKFVAS
 HPIQMYQVEFEDGSQLVVKRDDVYTLDEELPKRVKSRLSVASDMRFNEIFTEKEVKQEKQRQVINSRYR
 EDYIEPALYRAIME

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6169_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014663

ORF Size: 3192 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_014663.1](#), [NP_055478.1](#)

RefSeq Size: 4526 bp

RefSeq ORF: 3195 bp

Locus ID: 9682

UniProt ID: [O75164](#)

Cytogenetics: 1p34.2-p34.1

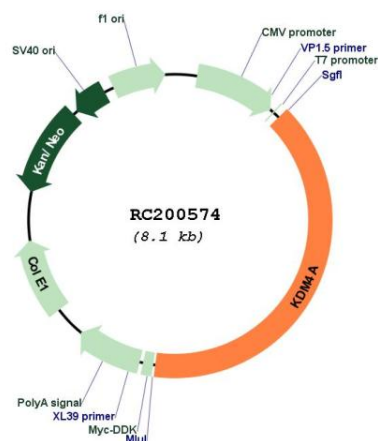
Domains: PHD, TUDOR, JmjC, JmjN

Protein Families: Druggable Genome, Transcription Factors

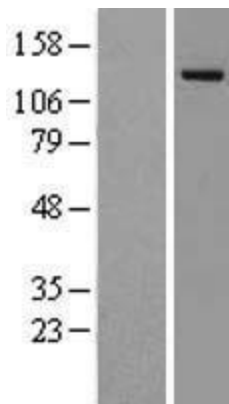
MW: 120.7 kDa

Gene Summary: This gene is a member of the Jumonji domain 2 (JMJD2) family and encodes a protein containing a JmjN domain, a JmjC domain, a JD2H domain, two TUDOR domains, and two PHD-type zinc fingers. This nuclear protein functions as a trimethylation-specific demethylase, converting specific trimethylated histone residues to the dimethylated form, and as a transcriptional repressor. [provided by RefSeq, Apr 2009]

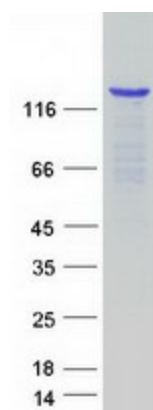
Product images:



Circular map for RC200574



Western blot validation of overexpression lysate (Cat# [LY402370]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200574 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KDM4A protein (Cat# [TP300574]). The protein was produced from HEK293T cells transfected with KDM4A cDNA clone (Cat# RC200574) using MegaTran 2.0 (Cat# [TT210002]).